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10/717,068

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Hui-Leng Lim

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EXAMINER

LE, DANH C

ART UNIT

PAPER NUMBER

2617

MAIL DATE

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08/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/717,068

Applicant(s)

LIM ET AL.

Examiner

DANH C. LE

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7, 10-13, 16 and 20-24 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 8, 9, 14, 15, 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1, 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuisma (US 6,259,929) in view of Comstock (US 20020183038).**

As to claim 1, Kuisma inherently teaches a radio phone for wireless communication (figures 1-3, 5 and their description), comprising:

a housing (1) including at least one module receiving slot and a first wireless communication radio, the first radio communicating with a first wireless device utilizing a first frequency band (analogue); and

a removable module (modules are detachable) configured for insertion into the module receiving slot (230), the module including a second communication radio utilizing a second frequency band (digital) so that, when the removable module is inserted into the slot, the access point is capable of communicating with a second wireless device utilizing at least one of the first and second frequency bands.

Kuisma fails to teach a radio phone is an access point. Comstock teaches a radio phone is an access point (paragraph 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the

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teaching of Comstock into the system of Kuisma in order to forward data signal to another node.

As to claim 11, Kuisma teach a wireless radio phone (figures 1-3, 5 and their descriptions), comprising:

a first module (2') including a first wireless communication radio communicating utilizing a first frequency band (analogue); and

a housing (1) including first and second receiving slots (modules are detachable), the first module being mounted in a first receiving slot of the housing, the second receiving slot being capable of receiving a second removable module, the second module including a second wireless radio communicating utilizing a second frequency band, wherein when the second module is inserted into the second slot, the access point is capable of communicating with a wireless device utilizing at least one of the first and second frequency bands.

Kuisma fails to teach a radio phone is an access point. Comstock teaches a radio phone is an access point (paragraph 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Comstock into the system of Kuisma in order to forward data signal to another node.

As to claim 16, Kuisma teaches the wireless communication radio phone (figures 1-3, 5, and their descriptions), comprising:

a wireless radio communicating with a wireless device;

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a housing (1) including at least one module receiving slot and housing the radio;  
and

at least one module (module are detachable) selectively insertable into and removable from the slot, the module including one of an internal antenna and an external antenna for the radio

Kuisma fails to teach a radio phone is an access point. Comstock teaches a radio phone is an access point (paragraph 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Comstock into the system of Kuisma in order to forward data signal to another node.

As to claim 22, the combination of Comstock and Comstock teaches the access point according to claim 1, wherein the access point automatically forwards a communication from the first wireless device to at least one of the second wireless device and a third wireless device (Comstock paragraph 21)

As to claim 23, the combination of Comstock and Comstock teaches the wireless access point according to claim 11, wherein the wireless access point automatically forwards a communication from the first wireless radio to at least one of the second wireless radio and a third wireless device (paragraph 21).

As to claim 24, the combination of Comstock and Comstock teaches he wireless communication access point according to claim 16, wherein the wireless communication

access point automatically forwards a communication from the first wireless radio to at least one of the second wireless radio and a third wireless device (paragraph 21).

**2. Claims 4-7, 10, 12, 13, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuisma in view of Postma (US 2002/0172336).**

As to claim 4, Kuisma teaches the access point according to claim 1, Kuisma fails to teach further communications over the first frequency band utilize 802.11a technology, communications over the second frequency band utilize one of 802.11b and 802.11g technology, and wherein when communications over the first frequency band utilize one of the 802.11b and 802.11g technology, communications over the second frequency band utilize the 802.11a technology. Postma teaches communications over the first frequency band utilize 802.11a technology, communications over the second frequency band utilize one of 802.11b and 802.11g technology, and wherein when communications over the first frequency band utilize one of the 802.11b and 802.11g technology, communications over the second frequency band utilize the 802.11a technology (paragraph 52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Postma into the system of Kuisma in order to enhance the system performance of the radio composable of the separate module.

As to claim 5, Postma teaches the access point according to claim 1, wherein when the removable module is inserted into the slot, the second radio establishes an electrical connection with a circuitry of the housing (figure 4, 110).

As to claim 6, Postma teaches the access point according to claim 5, wherein

the second radio establishes the connection with the circuitry using a parallel connection (figure 4, 110, 210).

As to claim 7 Postma teaches the access point according to claim 1, further comprising: a plurality of first antenna connectors connected to the first radio, wherein the module includes a plurality of the second antenna connectors connected to the second radio (figure 2, 168, 170).

As to claim 10, Postma teaches the access point according to claim 1, wherein when the removable module is inserted into the slot, a circuitry of the housing performs an initialization procedure to initiate utilization of resources of the removable module (figure 4).

As to claim 12, Postma teaches the access point according to claim 11, wherein the first module is permanently mounted in the first slot (figure 4).

As to claim 13, Postma teaches the access point according to claim 11, wherein when communications over the first frequency band utilize 802.11a technology, communications over the second frequency band utilize one of 802.11b and 802.11g technology, and wherein when communications over the first frequency band utilize one of the 802.11b and 802.11g technology, communications over the second frequency band utilize the 802.11a technology.

As to claim 19, Postma teaches the access point according to claim 18, further comprising: a further module selectively insertable into and removable from the slot, the module including a further radio communicating with a further wireless device utilizing a second frequency band, wherein the further module inserted into the slot, the access

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point communicate using at least one of the first and second frequency bands (figure 4 and its description).

As to claim 20, Postma teaches the access point according to claim 19, wherein when communications over the first frequency band utilize 802.11a technology, communications over the second frequency band utilize one of 802.11b and 802.11g technology, and wherein when communications over the first frequency band utilize one of the 802.11b and 802.11g technology, communications over the second frequency band utilize the 802.11a technology (paragraph 52).

As to claim 21, Postma teaches the access point according to claim 16, wherein when the module is inserted into the slot, a circuitry of the housing performs an initialization procedure to initiate utilization of resources of the module (figure 4, 110, 210).

***Allowable Subject Matter***

Claims 8, 9, 14, 15 are objected in previous Office Action.

Claims 2, 3, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 2, 3, 17, the teaching of above prior arts either alone or in combine fails to further teaches the housing include at least one cover covering the corresponding receiving slot and the removable module including a further cover which has a shape substantially similar to the shape of the cover, and wherein when the



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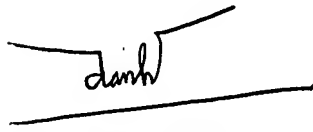
removable module is inserted into the slot, the cover is removed and the slot is covered with the further cover.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



August 3, 2007  
DANH LE

PRIMARY EXAMINER